

CLAIMS

1. A cooking apparatus for cooking food, comprising:
  - a housing,
  - a support means located in said housing for supporting food to be cooked,
  - a lower electrical heating element located in said housing below said support means,
  - first and second laterally spaced apart upper electrical heating elements located in said housing above said support means and the food to be cooked,
  - power supply means for supplying electrical power,
  - a first control means coupled to said power supply means and to said first electrical heating element,
  - a second control means coupled to said power supply means and to said second electrical heating element,
  - a third control means coupled to said power supply means and to said lower electrical heating element,
  - a programmable controller having first, second, and third outputs coupled to said first, second, and third control means respectively for controlling the application of electrical power from said power supply means to said first, second, and lower electrical heating elements respectively,
  - a heat sensing means located in said housing and having an output coupled to said programmable controller,
  - said programmable controller being responsive to said output of said temperature sensing means and being programmed to control said third control means to control the application of electrical power from said power supply means to said lower heating element to maintain the temperature within said housing at least at a given temperature level,
  - said programmable controller having a plurality of different menus stored therein,

menu selecting means for selecting any one of said plurality of different menus stored in said programmable controller,

heating element selecting means for separately selecting any one of (a) said first heating element, (b) said second heating element, (c) the combination of said first and second heating elements,

each menu selected having parameters for controlling the time and amount of electrical power applied to (a) said first heating element, (b) said second heating element, (c) the combination of said first and second heating elements selected,

said programmable controller being responsive to said output of said temperature sensing means and being programmed to control said first and second control means to decrease the temperature generated by said (a) first heating element, (b) said second heating element, (c) the combination of said first and second heating elements selected in the event the temperature in said housing increases above an upper temperature level greater than said given temperatures level.

2. The cooking apparatus of claim 1, wherein:

said programmable controller is programmed to control said first and second control means to disconnect the electrical power applied to said (a) first heating element, (b) said second heating element, (c) the combination of said first and second heating elements in the event the temperature in said housing increases above said upper temperature level.

3. The cooking apparatus of claim 1, wherein:

each of said plurality of menus has a given time period,

said programmable controller being programmed to default to a given menu after termination of the time period of said menu selected.

4. The cooking element of claim 2, wherein:
  - each of said plurality of menus has a given time period,  
said programmable controller being programmed to default to a given menu after termination of the time period of said menu selected.
5. A cooking apparatus for cooking food, comprising:
  - a housing,
  - a support means located in said housing for supporting food to be cooked,
  - a lower electrical heating element located in said housing below said support means,
  - an upper electrical heating elements located in said housing above said support means and the food to be cooked,
  - power supply means for supplying electrical power,
  - a broiler control means coupled to said power supply means and to said upper electrical heating element,
  - a control means coupled to said power supply means and to said lower electrical heating element,
  - a programmable controller having separate outputs coupled to said broiler control means and to said control means coupled to said lower heating element respectively for controlling the application of electrical power from said power supply means to said upper and lower electrical heating elements respectively,
  - a heat sensing means located in said housing and having an output coupled to said programmable controller,
  - said programmable controller being responsive to said output of said temperature sensing means and being programmed to control said control means coupled to said lower heating element to control the application of electrical power from said power supply means to said lower heating element to maintain the temperature within said housing at least at a given temperature level,

said programmable controller having a plurality of different menus stored therein,

    menu selecting means for selecting any one of said plurality of different menus stored in said programmable controller,

    heating element selecting means for selecting said first upper element,

    each menu selected having parameters for controlling the time and amount of electrical power applied to said upper heating element,

    said programmable controller being programmed to control said broiler control means to decrease electrical power applied to said upper heating element in the event the temperature in said housing increases above an upper temperature level greater than said given temperature level.

6. The cooking apparatus of claim 5, wherein:

    said programmable controller is programmed to control said broiler control means to disconnect the electrical power applied to said upper heating element in the event the temperature in said housing increases above said upper temperature level.

7. The cooking apparatus of claim 5, wherein:

    each of said plurality of menus has a given time period,

    said programmable controller being programmed to default to a given menu after termination of the time period of said menu selected.

8. The cooking apparatus of claim 6, wherein:

    each of said plurality of menus has a given time period,

    said programmable controller being programmed to default to a given menu after termination of the time period of said menu selected.